

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strike through~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claims 2-33, 40 and 42, AMEND claims 34-39, and 41 and ADD claims 43 and 44 in accordance with the following:

1. (CURRENTLY AMENDED) An optical switch having a plurality of switch cells, wherein:

said optical switch has n inputs (n is a natural number) and m outputs (m is a natural number);

said optical switch has a unit size defined as the distance between any two adjacent ones of said switch cells;

said optical switch comprises:

a substrate having a switch size of $K \times L$ (K is an integer satisfying $n \leq K$, and L is an integer satisfying $m \leq L$);

first and second mirrors parallel to each other and perpendicular to a principal surface of said substrate; and

an optical unit ~~providing~~including a plurality of input optical paths for said n inputs and a plurality of output optical paths for said m outputs, said plurality of input optical paths being inclined relative to said first and second mirrors, said plurality of output optical paths being inclined relative to said first and second mirrors; and

each of said switch cells comprises a switch mirror provided movably relative to said substrate.

2-33. (CANCELLED)

34. (CURRENTLY AMENDED) An optical switch comprising:

a plurality of optical path switching means ~~arranged so as to~~ arbitrarily guide light from a plurality of input ports to a plurality of output ports, each of said plurality of optical path

reflecting means for reflecting light from said input ports or light from said optical reflecting members toward said output ports or said optical reflecting members.

35. (CURRENTLY AMENDED) An optical switch comprising:

a plurality of optical path switching means ~~arranged so as to~~ arbitrarily guide light from a plurality of input ports to a plurality of output ports, each of said plurality of optical path switching means ~~having~~including a movable optical reflecting member; and

reflecting means on opposite sides of said movable optical reflecting member for reflecting light from said input ports or light from said optical reflecting member toward said output ports or said optical reflecting member, wherein all the optical path lengths from said input ports to said output ports ~~being~~are equal.

36. (CURRENTLY AMENDED) An optical switch comprising:

a plurality of optical path switching means ~~arranged so as to~~ arbitrarily guide light from a plurality of input ports to plurality of output ports, each of said plurality of optical path switching means ~~having~~including a movable optical reflecting member; and

reflecting means on opposite sides of said movable optical reflecting member for reflecting light from said input ports or light from said optical reflecting member toward said output ports or said optical reflecting member, wherein all the optical losses from said input ports to said output ports ~~being~~are equal.

37. (CURRENTLY AMENDED) An optical switch comprising:

a plurality of optical input ports;

a plurality of output ports;

a plurality of optical path switching means provided between said plurality of optical input ports and said plurality of optical output ports, each of said plurality of optical path switching means ~~having~~including movable optical reflecting member; and

reflecting means provided outside of said plurality of optical path switching means between said plurality of optical input ports and said plurality of optical output ports for reflecting light from said optical input ports or light from said optical path switching means.

38. (CURRENTLY AMENDED) An optical switch comprising:

a plurality of optical input ports;

a plurality of output ports;

a plurality of optical path switching means provided between said plurality of optical input ports and said plurality of optical output ports, each of said plurality of optical path switching means ~~having~~including a movable optical reflecting member; and

reflecting means provided between said plurality of optical input ports and said plurality of optical output ports so as to interpose said plurality of optical path switching means for reflecting light from said optical input ports or light from said optical path switching means.

39. (CURRENTLY AMENDED) An optical switch comprising:

a plurality of optical input ports;

a plurality of output ports;

a plurality of optical path switching means provided between said plurality of optical input ports and said plurality of optical output ports, each of said plurality of optical path switching means ~~having~~including a movable optical reflecting member;

reflecting means on opposite sides of said movable optical reflecting member for reflecting light from said input ports or light from said optical reflecting member toward said output ports or said optical reflecting member; and

optical inputs from said optical input ports to adjacent ones of said optical path switching means crossing each other in direction.

40. (CANCELLED)

41. (CURRENTLY AMENDED) An optical switch comprising:

a plurality of optical input ports;

a plurality of optical output ports; and

a plurality of optical path switching means provided between said plurality of optical input ports and said plurality of optical output ports, each of said plurality of optical path switching means ~~having~~including a movable optical reflecting member; and

reflecting means on opposite sides of said movable optical reflecting member for reflecting light from said input ports or light from said optical reflecting member toward said output ports or said optical reflecting member, wherein

~~initial operational conditions of adjacent ones of said optical path switching means for receiving light from said optical input ports being~~are reversed to each other.

42. (CANCELLED)

43. (NEW) An optical switch, including optical input ports and optical output ports, comprising:

a plurality of optical path switches, between the optical input ports and the optical output ports, each including a movable optical reflecting member; and

a pair of mirrors on opposite sides of the movable optical reflecting member to reflect light from the optical input ports and from the optical reflecting member toward the optical output ports and the optical reflecting member.

44. (NEW) An optical switch, including optical input ports and optical output ports, comprising:

a plurality of optical path switches, between the optical input ports and the optical output ports, each including a movable optical reflecting member; and

a pair of mirrors on opposite sides of the movable optical reflecting member to reflect light from the optical input ports and from the optical reflecting member toward the optical output ports and the optical reflecting member, wherein

the optical patch switches, which are connected to the optical input ports, are alternately inverted in logic; and

the optical patch switches, which are connected to the optical output ports, are alternately inverted in logic.